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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 09/681,882 | 06/20/2001 | Steven Eric Linthicum | RD-27281 | 1535 |
| 6147 | 7590 | 09/02/2004 | EXAMINER | |
| GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309 | | | NGUYEN, THU HA T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2155 | |

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/681,882 | LINTHICUM ET AL. |
| | Examiner | Art Unit |
| | Thu Ha T. Nguyen | 2155 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 June 2001.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/13/01</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. Claims 1- 20 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9, 12, and 14-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Hanson et al.**, (hereinafter Hanson) U.S. Patent Application Publication No. **2002/0156558**.

4. As to claim 1, Hanson teaches the invention as claimed, including a maintenance management system for a given field asset comprising:
a portable computer with communication capability disposed on the field asset and adapted to store a maintenance history for the given field asset and further adapted to retrieve at least one of a plurality of maintenance information corresponding to the given field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026); and,

a communication network coupled to the portable computer and to at least one source of maintenance information to provide the at least one of a plurality of maintenance information for use in servicing the given field asset (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

5. As to claim 2, Hanson teaches the invention as claimed, wherein the maintenance information comprises at least one of maintenance instructions, technical documentation for the field asset, repair and maintenance history records, and maintenance and repair status (figure 1, paragraphs 0026-0027).

6. As to claim 3, Hanson teaches the invention as claimed, further comprising an on-board computing device further adapted to monitor operational parameters of the field asset and to communicate the operational parameters to the communication network (figure 1, paragraphs 0002-0004, 0005-0006).

7. As to claim 4, Hanson teaches the invention as claimed, wherein the portable computer and the on-board computing device are selected to withstand the environmental conditions of the field asset (paragraphs 0022-0026).

8. As to claim 5, Hanson teaches the invention as claimed, wherein the portable computer is further adapted to be removable from the field asset and configured to interface with the communication network via the on-board computing device in a wireless manner (figures 1, 4, paragraphs 0023-0027).

9. As to claim 6, Hanson teaches the invention as claimed, wherein the portable computer is configured to periodically query the communication network for at least one of maintenance instructions and updates to its technical information (figure 1, paragraph 0026).

10. As to claim 7, Hanson teaches the invention as claimed, wherein the communication network is configured to import maintenance information from at least one of the sources (figure 1, paragraphs 0026-0027).

11. As to claim 8, Hanson teaches the invention as claim, wherein the portable computer is further adapted to permit service personnel to select maintenance instructions and record maintenance activities for the field asset (paragraphs 0019-0020, 0024-0027).

12. As to claim 9, Hanson teaches the invention as claim, wherein the portable computer is adapted to provide feedback of completion of a repair action to the communication network (paragraphs 0018-0019).

13. As to claim 12, Hanson teaches the invention as claim, wherein the communication network is coupled to at least one of a customer center, a service center, a parts requisition center and a configuration database (figure 1).

14. As to claim 14, Hanson teaches the invention as claim, including a maintenance management system for a given field asset comprising:

an on-board computing device disposed on the field asset and adapted to store a maintenance history for the given field asset and further adapted to retrieve at least one maintenance instruction corresponding to the given field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026);

a plurality of sources of maintenance instructions (figure 1); and,

a communication network coupled to the on-board computing device and to the plurality of sources of maintenance instructions to provide the at least one maintenance instruction for use in servicing the given field asset (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

15. As to claim 15, Hanson teaches the invention as claim, wherein the maintenance instructions comprise at least one of maintenance instructions, technical documentation for the field asset, repair and maintenance history records, and maintenance and repair status (figure 1, paragraphs 0026-0027).

16. As to claim 16, Hanson teaches the invention as claim, wherein the on-board computing device is further adapted to monitor operational parameters of the field asset and to communicate the operational parameters to the communication network (figure 1, paragraphs 0002-0004, 0005-0006).

17. As to claim 17, Hanson teaches the invention as claim, wherein the on-board computing device is selected to withstand the environmental conditions of the field asset (paragraphs 00220026).

18. As to claim 18, Hanson teaches the invention as claim, wherein the on-board computing device is further adapted to be removable from the field asset and configured to interface with the communication network in a wireless manner (figures 1, 4, paragraphs 0023-0027).

19. As to claim 19, Hanson teaches the invention as claim, wherein the on-board computing device is configured to periodically query the communication network for maintenance instructions (figure 1, paragraph 0026).

20. As to claim 20, Hanson teaches the invention as claim, including a method for maintenance management of a given field asset comprising:

storing a maintenance history on a computing device disposed on the field asset; periodically querying a remote communication network for required maintenance events for the field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026);

retrieving the required maintenance events from the remote communication network for use in servicing the field asset; and, updating the communication network from the computing device upon completion of the

required maintenance events (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 10-11 and 13 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Hanson** in view of **Maus et al.**, (hereinafter Maus) U.S. Patent Application Publication No. **2002/0128864**.

23. As to claim 10, Hanson does not explicitly teach the invention as claim; however, Maus teaches wherein the maintenance information comprises multimedia information (paragraphs 0078-0080). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have information includes multimedia information because it would have an efficient communications system that provides user can browse variety of sources and/or information from Internet.

24. As to claim 11, Hanson does not explicitly teach the invention as claim; however, Maus teaches wherein the multimedia information comprises at least one of still and video images, text instructions, schematics, drawings, instant messaging instructions and audio instructions (paragraphs 0078-0080). It would have been obvious to one skill in the art at the time the invention was made to have the same motivation as set forth in claim 10, supra.

25. As to claim 13, Hanson does not explicitly teach the invention as claim; however, Maus teaches wherein the portable computer is adapted to link to a bar code reader to decode bar-coded information during execution of a repair action (paragraphs 0038, 0075). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of Hanson and Maus to have a bar code reader because it would have an efficient system that can use and read bar code of products in order to provide sufficient information to user/consumer.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

27. Allred et al. (USPN 6,519,723); Deker et al. (USPN 6,181,987); Henry et al. (US Publication No. 2003/0187554); Ballantine et al. (USPN 6,446,123); Spaur et al. (USPN 5,732,074); Kawagoe (USPN 6,119,158); Toshiba (assignee) (Application Publication No. JP 11259119A) are recited for

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disclosing various information related to the claimed invention. Applicants are requested to consider these prior art references when responding to this office action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (703) 305-7447. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached at (703) 308-6662.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications.

Thu Ha Nguyen

August 26, 2004

Hosain Alam

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER